

Appl. No. : 10/025,324
Filed : December 18, 2001

REMARKS

By this paper, Claims 1, 2, 14, and 15 have been canceled. Claims 3, 9, 16, and 17 have been amended. Claims 4-8, 10-13, and 18-21 remain unchanged by this Amendment. Claim 22 has been added. Hence, by this paper, Claims 3-13, and 16-22 are presented for further examination.

I. Rejection of Claims Under 35 U.S.C. § 112, Second Paragraph

On page 2 of the Office Action mailed October 6, 2003, Claims 3-13 and 16-21 were rejected under 35 U.S.C. § 112, second paragraph, "as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention." In particular, the Examiner indicated that Claim 3, and its depending claims were indefinite because "the ratio(s) or object(s) to be increased are clearly recited, how they should be increased is ambiguous since 'in view of a relationship between ...' encompasses an infinite number of functions and values." *Office Action* at 2. Further, in reference to Claims 5 and 10, the Examiner indicated that the term reaction points "is not a term of art, but is interpreted as 'reaction sites.'" *Id.* Finally, in reference to Claims 9 and 17, the Examiner indicated that the phrase "or the like" was indefinite because the phrase encompassed elements not disclosed which thereby rendered "the scope of the claims unascertainable." *Id.*

Applicant submits that Claim 3, as amended, is in allowable form. Further, as Claim 3 is allowable, Applicant submits that each of its dependent claims is also allowable.

With respect to Claims 5 and 10, Applicant submits that the term "reaction sites" is sufficiently defined in the specification. *See, e.g.,* Specification, page 21, lines 8-13. Thus, Applicant submits that Claims 5 and 10 are also allowable.

Claims 9 and 17 have been amended to more distinctly point out the invention to one of skill in the art. Thus, Applicant submits that Claims 9 and 17, as amended, are also allowable.

II. Rejection of Claims 1-3, 5-7, 9-12, and 14-20 under 35 U.S.C. § 102

One page 3 of the Office Action mailed October 6, 2003, Claims 1, 3, 9 and 12 were rejected under 35 U.S.C. § 102(e) as being anticipated by Maruyama et al. (U.S. Patent No. 6,420,072) [hereinafter *Maruyama*]. The Examiner also rejected Claims 1, 3, 5-7, 9-12, 14 and 16-20 under 35 U.S.C. § 102(e) as being anticipated by Amano et al. (U.S. Patent No. 6,235,433)

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[hereinafter *Amano*]. In addition, Claims 1, 2, 14 and 15 were rejected under 35 U.S.C. § 102(e) as being anticipated by Minakata et al. (U.S. Patent No. 6,284,412). Claims 1, 2, 14, and 15 have been canceled. Thus, for the reasons set forth below, Applicant respectfully disagrees with the Examiner's findings and determination that Claims 3-13, and 16-21 are anticipated by one of *Maruyama*, or *Amano*.

A. The Law of Anticipation

Anticipation under Section 102 can be found only if a reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775 (Fed. Cir. 1985). More particularly, a finding of anticipation requires the disclosure in a single piece of prior art of each and every limitation of a claimed invention. *Electro Med. Sys. S.A. v. Cooper Life Sciences*, 34 F.3d 1048, 1052 (Fed. Cir. 1994). "To anticipate, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim." *Brown v. 3M*, 265 F.3d 1349 (Fed. Cir. 2001). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970).

B. Rejection of Claims 3, 9, and 12 as being anticipated by *Maruyama*

The Examiner took the position that *Maruyama* anticipates Claim 3 because, according to the Examiner, *Maruyama* discloses a polymer gel comprising a cross-linked polymeric polymer and a non-aqueous solvent. *Office Action* at page 3. Applicant submits that neither the portions of *Maruyama* cited by the Examiner in rejecting Claim 3, nor any other portions of *Maruyama* teach or suggest a method of producing an electrolyte such that "a second portion of the electrolyte forms a separated phase of liquid electrolyte solution" as recited, *inter alia*, in Claim 3, as amended. Rather, *Maruyama* discloses that a polyelectrolytic "gel of the invention is stable in the form at a high temperature." *Maruyama*, Specification, col. 12, lines 11-12. In particular, "when heated even to 80° C. for 1 hour, the gel neither brings about a phase separation into liquid phase of nonaqueous solvent and solid phase of solid gel nor is lowered in transparency." *Id.* lines 12-14. Therefore, Applicant submits that *Maruyama* does not anticipate the invention recited in Claim 3, as amended, because *Maruyama*, in disclosing a stable gel electrolyte, fails to disclose an method of producing an electrolyte such that "a second portion of the electrolyte forms a separated phase of liquid electrolyte solution" as recited, *inter alia*, in Claim 3, as amended.

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C. Rejection of Claims 3, 5-7, 9-12, and 16-20 as being anticipated by *Amano*

Similarly, the Examiner argued the position that *Amano* anticipates Claim 3 because, according to the Examiner, *Amano* discloses “secondary batteries which include a gel electrolyte comprising a matrix polymer and an electrolyte solution in the matrix polymer.” *Office Action* at page 4. Applicant submits that neither the portions of *Amano* cited by the Examiner in rejecting Claim 3, nor any other portions of *Amano* teach or suggest a method of producing an electrolyte such that “a first portion of the electrolyte solution forms a gel with the crosslinked polymer and a second portion of the electrolyte forms a separated phase of liquid electrolyte solution” as recited, *inter alia*, in Claim 3, as amended. Rather, *Amano* discloses the use of an electrolyte that is “homogeneous.” *Amano*, Specification, col. 12, line 9. Therefore, Applicant submits that *Amano* does not anticipate the invention recited in Claim 3, as amended, because *Amano*, in disclosing a stable gel electrolyte, fails to disclose an method of producing an electrolyte such that “a first portion of the electrolyte solution forms a gel with the crosslinked polymer and a second portion of the electrolyte forms a separated phase of liquid electrolyte solution” as recited, *inter alia*, in Claim 3, as amended.

Thus, Applicant submits that Claim 3 is allowable, and requests that the rejection of Claim 3 be withdrawn. Since each of Claims 5-7, 9-12, and 16-20 depends either directly or indirectly on Claim 3, the Applicant submits that those claims are also allowable.

III. Rejection of Claims 8, 13, and 21 under 35 U.S.C. § 103

On page 5 of the Office Action, the Examiner rejected Claims 8, 13, and 21 under 35 U.S.C. § 103(a) as being unpatentable over *Amano*. In particular, the Examiner took the position that *Amano* discloses all elements of Claims 8, 13, and 21 except that *Amano* “does not specifically recite ethylene dimethacrylate as the low molecular weigh [sic] compound functioning as a crosslinking agent.” *Office Action* at 5. Rather, after indicating that *Amano* discloses the use of compounds with two polymerizable functional groups, the Examiner took the position that it would be obvious to one of ordinary skill in to art to recognize that ethylene dimethacrylate is such a compound. *Id.*

To establish a *prima facie* case of obviousness, three basic criteria must be met: (1) there must be some suggestion or motivation to combine the reference teachings, (2) there must be a

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reasonable expectation of success, and (3) the references when combined must teach or suggest all of the claim limitations. See *M.P.E.P.* § 2143. It is well settled that “a showing of a suggestion, teaching or motivation to combine the prior art references is an ‘essential component of an obviousness holding’.” See, e.g., *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 U.S.P.Q.2d 1456, 1459 (Fed. Cir. 2000). The Examiner can satisfy the burden of showing obviousness of the combination “only by showing some objective teaching in the prior art or knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references.” *In re Fitch*, 972 F.2d 1260, 1265, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). “Determination of obviousness cannot be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the patented invention.” *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 546 (Fed. Cir. 1998).

As discussed above, Applicant submits that *Amano* fails to disclose all limitations of Claim 3, as amended. Further, Applicant submits that it would not have been obvious to one of ordinary skill in the art to recognize the invention of Claim 3, as amended, in view of teachings of *Amano*. Thus, because each of Claims 8, 13, and 21 depend from Claim 3, as amended, Applicant submits that *Amano* fails to teach or suggest all limitations in each of Claims 8, 13, and 21. Moreover, Applicant submits that no motivation to combine has been shown. Applicant therefore submits that Claims 8, 13, and 21 are each allowable.

IV. Rejection of Claim 4

On page 1 of the Office Action, the Examiner indicated that each of Claims 1-21 was rejection. However, Applicant notes that Claim 4 is not listed in any of the specific rejections made by the Examiner in the Office Action. Nevertheless, because Claim 4 depends on Claim 3, Applicant submits that Claim 4 is allowable for at least those reasons discussed above in reference to Claim 3.

V. New Claim 22

By this paper, Applicant has added Claim 22. Applicant submits that Claim 22 is allowable for, at least, the reasons discussed above in connection with Claim 3.

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VI. Conclusion

Applicant has endeavored to address all of the Examiner's concerns as expressed in the Office Action. Accordingly, amendments to the claims, the reasons therefor, and arguments in support of patentability of the pending claim set are presented above. Any claim amendments which are not specifically discussed in the above remarks are made in order to improve the clarity of claim language, to correct grammatical mistakes or ambiguities, and to otherwise improve the clarity of the claims to particularly and distinctly point out the invention to those of skill in the art. Finally, Applicant submits that the claim limitations above represent only illustrative distinctions. Hence, there may be other patentable features that distinguish the claimed invention from the prior art.

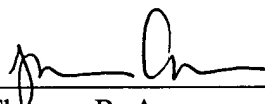
In view of the foregoing, Applicant respectfully requests reconsideration and withdrawal of the outstanding rejections and, particularly, that all claims be allowed. If the Examiner finds any remaining impediment to the prompt allowance of these claims that could be clarified with a telephone conference, the Examiner is respectfully invited to call the undersigned.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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